



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

1ra Semana



Semana: 01 al 07 de marzo de 2015

Fecha: 07 de marzo de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH**	06-A-SECH**	07-B-SECH**	08-C-SECH**	09-A-SECH**	10-C-SECH**	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	....	....	....	0-10	0-5	0-5	....
TEMPERATURA (°C)	....	....	....	....	....	....	....	20.6	25.0	19.1	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	1	0	0	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	1	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
<i>Protoperidinium crassipes</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M
FITOFLAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	MD	MD	MD	0	0	0	S/M

S/M: Sin Monitoreo

MD: Muestra Deteriorada

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



ORGANISMO NACIONAL DE SANIDAD PESQUERA

SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

2da Semana



Semana: 08 al 14 de marzo de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH**	06-A-SECH**	07-B-SECH**	08-C-SECH**	09-A-SECH**	10-C-SECH**	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	....	....	....	....	....	....	....
TEMPERATURA (°C)	....	....	....	....	....	....	....	....	....	....	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
FITOFAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M

S/M: Sin Monitoreo

MD: Muestra Deteriorada

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



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Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

3ra Semana



Semana: 15 al 21 de marzo de 2015

ZONAS	012 BAHIA DE SECHURA												
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS		VICHAYO		PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH	06-A-SECH	07-B-SECH**	08-C-SECH**	09-A-SECH**		10-C-SECH**		11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	....	....	....	....	....	....	....	....	....
TEMPERATURA (°C)	....	....	....	....	....	....	....	....	....	....	....	....	....
DIATOMEAS													
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
DINOFLAGELADOS													
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
<i>Protoperidinium crassipes</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M
FITOFLAGELADOS													
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	S/M	S/M	MD	MD	MD	MD	MD	MD	S/M

S/M: Sin Monitoreo

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



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SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

4ta Semana



Semana: 22 al 28 de marzo de 2015

Fecha: 28 de marzo de 2015

ZONAS	012 BAHIA DE SECHURA										
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH
PROFUNDIDAD (m)	....	....	....	....	....	....	0-9	0-9	0-8	0-7	....
TEMPERATURA (°C)	....	....	....	....	....	....	25.8	26.2	23.0	22.7	....
DIATOMEAS											
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
DINOFLAGELADOS											
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	S/M	S/M	1	1	1	1	S/M
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	S/M	S/M	1	1	1	1	S/M
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	S/M	S/M	1	0	0	0	S/M
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
<i>Protoperdinium crassipes</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M
FITOFAGELADOS											
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	S/M

S/M: Sin Monitoreo

MD: Muestra Deteriorada

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.



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SUB DIRECCIÓN DE SUPERVISIÓN ACUÍCOLA

Monitoreo de Fitoplancton Potencialmente Tóxico

Departamento de Piura: Zona 012 Sechura

Análisis Semicuantitativo de Fitoplancton / Abundancia Relativa (células/campo)

5ta Semana



Semana: 29 de marzo al 04 de abril de 2015

Fecha: 01 y 04 de abril de 2015

ZONAS	012 BAHIA DE SECHURA											
AREAS	SAN PABLO	SAN PEDRO	PLAYA CHUYILLACHI	CHUYILLACHI	MATACABALLO	CONSTANTE	LAS DELICIAS	PARACHIQUE	BARRANCOS	VICHAYO	PUERTO RICO	
ESTACION	01-A-SECH	02-A-SECH	03-A-SECH	04-A-SECH	05-C-SECH	06-A-SECH	07-B-SECH*	08-C-SECH*	09-A-SECH*	10-C-SECH*	11-A-SECH**	
PROFUNDIDAD (m)	....	....	....	....	....	....	0-9	0-9	0-6	0-6	0-6	0-6
TEMPERATURA (°C)	....	....	....	....	....	....	21.1	21.0	20.0	18.3	21.7	20.8
DIATOMEAS												
Grupo <i>Pseudo-nitzschia delicatissima</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
Grupo <i>Pseudo-nitzschia seriata</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
DINOFLAGELADOS												
<i>Alexandrium minutum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Alexandrium monilatum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Alexandrium ostenfeldii</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Alexandrium peruvianum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Alexandrium</i> sp.	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Azadinium spinosum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Cochlodinium polykrikoides</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Dinophysis acuminata</i>	S/M	S/M	S/M	S/M	S/M	S/M	1	1	1	1	0	0
<i>Dinophysis caudata</i>	S/M	S/M	S/M	S/M	S/M	S/M	1	1	1	1	0	0
<i>Dinophysis rotundata</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Dinophysis tripos</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Gonyaulax spinifera</i>	S/M	S/M	S/M	S/M	S/M	S/M	1	0	0	0	0	0
<i>Karenia</i> sp.	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Karlodinium</i> cf. <i>veneficum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Lingulodinium polyedrum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Prorocentrum lima</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Prorocentrum minimum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	1
<i>Protoceratium reticulatum</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
<i>Protoperidinium crassipes</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0
FITOFLAGELADOS												
<i>Heterosigma akashiwo</i>	S/M	S/M	S/M	S/M	S/M	S/M	0	0	0	0	0	0

S/M: Sin Monitoreo

Escala relativa de abundancia: Ausente:0, Presente:1, Escaso:2, Abundante:3, Muy Abundante:4

Fuente: * Entidad de Apoyo CERPER S.A.

** Entidad de Apoyo ACUILAB S.A.